

**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2012 Levee Maintenance Deficiency Summary Report**

**Overall LMA & Unit Ratings, including USACE Erosion Survey**

**Sacramento River Basin**

<b>NA0008</b>	Overall LMA Rating	Total LMA Miles						
<b>Knights Landing Ridge Drainage District</b>	<b>A</b>	<b>12.57</b>						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation	0.01		0.01	0.08%				
Encroachments	0.24		0.24	1.91%		0.07		
Slope Stability	0.01		0.01	0.08%				
Cracking	0.01		0.01	0.08%				
<i>Supplemental</i>								
USACE Erosion Survey	0.07		0.07	0.56%				
<i>LMA Totals:</i>	0.34	0.00	0.34	2.71%	0.00	0.07	0.00	0.00

  

<b>Unit No. 01 Knights Landing Ridge Cut RB</b>	Overall Unit Rating	Total Unit Miles						
NA0008	<b>A</b>	<b>6.43</b>						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation	0.01		0.01	0.16%				
Encroachments	0.24		0.24	3.73%				
<i>Supplemental</i>								
USACE Erosion Survey	0.02		0.02	0.31%				
<i>Unit Totals:</i>	0.27	0.00	0.27	4.20%	0.00	0.00	0.00	0.00

  

<b>Unit No. 02 Knights Landing Ridge Cut LB</b>	Overall Unit Rating	Total Unit Miles						
NA0008	<b>A</b>	<b>6.14</b>						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Encroachments						0.07		
Slope Stability	0.01		0.01	0.16%				
Cracking	0.01		0.01	0.16%				
<i>Supplemental</i>								
USACE Erosion Survey	0.05		0.05	0.81%				
<i>Unit Totals:</i>	0.07	0.00	0.07	1.14%	0.00	0.07	0.00	0.00

**Flood Control Project Maintenance  
Levee Inspections**  
**LMA District Cover Sheet**  
**Fall 2012 Levee Inspection Results**

**Knights Landing Ridge Drainage District**

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
* Overall LMA Rating (Fall Only)			A	

\*\* Non-receipt of Summer or Winter Inspection Reports may effect overall annual rating.

\*  
SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports.

Comments


**Flood Control Project Maintenance  
Levee Inspections**

**Unit Cover Sheet**

**Fall 2012 Levee Inspection Results**

**Knights Landing Ridge Drainage District**

Waterway			Bank	Unit Miles
Unit No. 01 Knights Landing Ridge Cut			Right	6.43
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			<b>A</b>	
Date of Inspection	04/10/2012 - 04/10/2012		09/19/2012 - 09/19/2012	
DWR Inspector	John Williamson		John Williamson	
Accompanied By	Chad Navarrot RD 108		Chad Navarrot RD 108	

**Summer & Winter Inspections**

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

*The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.*

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2012**

**Knights Landing Ridge Drainage District**

Waterway						Bank	Unit Miles	Inspection Start/End	Inspector	
Unit No. 01 Knights Landing Ridge Cut						Right	6.43	09/19/2012 09/19/2012	John Williamson	
LMR No.	Levee Mile		Category	Item	Location * + Rating	Action/Comment	GPS Latitude/Longitude		Issue No.	Photo
	Start	End					Start	End		
1			Earthen Levee	Operations & Maintenance Manuals	LS Ma		°	°	8	
DWR ID: DWR_NA0008_01_s_2012_8										
2			Earthen Levee	Emergency Supplies & Equipment	LS Ma		°	°	9	
DWR ID: DWR_NA0008_01_s_2012_9										
3			Earthen Levee	Flood Preparedness & Training	LS Ma		°	°	10	
DWR ID: DWR_NA0008_01_s_2012_10										
4	1.54	1.54	Earthen Levee	Vegetation	WS Ma	V2 : Remove the wild growth other than native grasses from the levee slopes.	38.734545 ° -121.683313 °	38.734545 ° -121.683313 °	4 Y	
DWR ID: DWR_NA0008_01_f_2012_4										
5	3.36	3.36	Supplemental	USACE Erosion Survey	WS Ma	Inspector Comments: 2011 - Toe scour and bank slumping. 2012: Site is part of the extended inventory, last inspected 2011. [2012 Site ID: KLR_3-5_R]	38.759332 ° -121.696063 °	38.758432 ° -121.695158 °	1	
DWR ID:										
6	3.77	3.77	Earthen Levee	Erosion / Bank Caving	WS Ma	E2 : Schedule repair of erosion site prior to the next inspection.	38.762270 ° -121.699786 °	38.762270 ° -121.699786 °	3	
DWR ID: DWR_NA0008_01_f_2012_3										
7	3.88	3.88	Supplemental	USACE Erosion Survey	WS Ma	Inspector Comments: 2011 - Toe erosion and erosion pockets from tree popouts. More tree popouts are expected due to the eroding toe. 2012: Site is part of the extended inventory, last inspected 2011. [2012 Site ID: KLR_3-9_R]	38.764905 ° -121.702074 °	38.764037 ° -121.701434 °	2	
DWR ID:										
8	6.17	6.41	Earthen Levee	Encroachments	LS Ma	EQ : Equipment	38.790007 ° -121.723308 °	38.792433 ° -121.726463 °	7 Y	
DWR ID: DWR_NA0008_01_s_2012_7										

**\* Location**

LS : Land Side  
WS : Water Side  
CR : Crown

**\*\* Rating**

A : Acceptable  
M : Minimally Acceptable  
U : Unacceptable  
N : Not Inspected/Rated  
C : Corrected  
A/W : Acceptable but Monitor & Maintain

**+ Issue Type**

Ma : Maintenance Deficiency  
Ob : Design & System Obsolescence  
En : Enforcement

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2012**

**Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.43	09/19/2012 09/19/2012	John Williamson

Levee Mile Report Line	4
Start Levee Mile	1.54
End Levee Mile	1.54
Location	Water Side
Category	Earthen Levee
Item	Vegetation

Sandbar Willows are creeping up waterside slope. Fall 2012

johngw\_f\_20120924\_730.jpg



Levee Mile Report Line	8
Start Levee Mile	6.17
End Levee Mile	6.41
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Equipment and irrigation pipe along the slope of the landside levee. Fall 2012

johngw\_f\_20120924\_727.jpg



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**Flood Control Project Maintenance  
Levee Inspections**

**Unit Cover Sheet**

**Fall 2012 Levee Inspection Results**

**Knights Landing Ridge Drainage District**

Waterway			Bank	Unit Miles
Unit No. 02 Knights Landing Ridge Cut			Left	6.14
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			<b>A</b>	
Date of Inspection	04/10/2012 - 04/10/2012		09/19/2012 - 09/19/2012	
DWR Inspector	John Williamson		John Williamson	
Accompanied By	Chad Navarrot RD 108		Chad Navarrot RD 108	

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**Levee Inspection Report By Mile - Fall 2012**

**Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.14	09/19/2012 09/19/2012	John Williamson

LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	
1	2.53	2.53	Earthen Levee	Slope Stability	CR	M Ma	S1 : Repair slope instability.	38.751823 ° -121.692795 °	38.751823 ° -121.692795 °	8 Y
								DWR ID: DWR_NA0008_02_f_2012_8		
2	2.72	2.72	Supplemental	USACE Erosion Survey	WS	M Ma	Inspector Comments: 2006 - The whole levee toe area is slowly slumping into the channel (creep) due to dewatering and poor slope soils. Occasional piping in the levee slope evident as well. Pistol-butted trees at the levee toe indicate slow retreat. 2011 - Multiple scallops throughout the site and slumping of the toe. 2012: Site is part of the extended inventory, last inspected 2011. [2012 Site ID: KLR_3-0_L]	38.757925 ° -121.693048 °	38.754899 ° -121.692653 °	2
								DWR ID:		
3	3.01	3.01	Supplemental	USACE Erosion Survey	WS	M Ma	Inspector Comments: 2006 - The whole levee toe area is slowly slumping into the channel (creep) due to dewatering and poor slope soils. Occasional piping in the levee slope evident as well. Pistol-butted trees at the levee toe indicate slow retreat. 2011 - Slumping of the levee toe. 2012: Site is part of the extended inventory, last inspected 2011. [2012 Site ID: KLR_3-1_L]	38.760053 ° -121.694686 °	38.758587 ° -121.693359 °	3
								DWR ID:		
4	3.61	3.61	Supplemental	USACE Erosion Survey	WS	M Ma	Inspector Comments: 2011 - The toe has eroded away and there are a few scallops from bank slumping. 2012: Site is part of the extended inventory, last inspected 2011. [2012 Site ID: KLR_3-7_L]	38.767336 ° -121.701023 °	38.765522 ° -121.700608 °	4
								DWR ID:		
5	4.35	4.35	Supplemental	USACE Erosion Survey	WS	M Ma	Inspector Comments: 2011 - This site is the downstream section of the old KLR 5.3L site. Levee toe is slowly retreating. Cracking on top of the levee may indicate potential mass movement. 2012: Site is part of the extended inventory, last inspected 2011. [2012 Site ID: KLR_4-7_L]	38.778115 ° -121.706195 °	38.775271 ° -121.703685 °	5
								DWR ID:		
6	5.21	5.21	Earthen Levee	Cracking	CR	M Ma	CR1 : Monitor and have inspected by geotechnical engineer.	38.784371 ° -121.713599 °	38.784371 ° -121.713599 °	7 Y
								DWR ID: DWR_NA0008_02_f_2012_7		
7	5.37	5.37	Supplemental	USACE Erosion Survey	WS	M Ma	Inspector Comments: 2011 - This site is the upstream section of the old KLR 5.3L site. Levee toe is slowly retreating. Cracking on top of the levee may indicate potential mass movement. 2012: Site is part of the extended inventory, last inspected 2011. [2012 Site ID: KLR_5-8_L]	38.792395 ° -121.724091 °	38.786566 ° -121.716724 °	6
								DWR ID:		
8	6.05	6.12	Earthen Levee	Encroachments	LS	U En	CR : Crops Inspector Comments: No access; strawberries are being grown landside levee slope and crown	38.792735 ° -121.724092 °	38.792735 ° -121.724092 °	1 Y
								DWR ID: DWR_NA0008_02_s_2012_1		

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**Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.14	09/19/2012 09/19/2012	John Williamson

Levee Mile Report Line	1
Start Levee Mile	2.53
End Levee Mile	2.53
Location	Crown
Category	Earthen Levee
Item	Slope Stability

There is some settling of the levee crown. Fall 2012

johngw\_f\_20120924\_731.jpg



Levee Mile Report Line	1
Start Levee Mile	2.53
End Levee Mile	2.53
Location	Crown
Category	Earthen Levee
Item	Slope Stability

A crack where the crown is depressed. Fall 2012

johngw\_f\_20120924\_732.jpg



Levee Mile Report Line	6
Start Levee Mile	5.21
End Levee Mile	5.21
Location	Crown
Category	Earthen Levee
Item	Cracking

Some cracking and sluffing on the crown. Fall 2012

johngw\_f\_20120924\_726.jpg



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**Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.14	09/19/2012 09/19/2012	John Williamson

Levee Mile Report Line	8
Start Levee Mile	6.05
End Levee Mile	6.12
Location	Land Side
Category	Earthen Levee
Item	Encroachments

A current view of the strawberry patch. Fall 2012

johngw\_f\_20120924\_725.jpg



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